## Thoughts on PI-led Space Science Missions

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## Thumbs-Up: What has been good about PI-led missions

- Many new planetary scientists in key leadership positions
- Several new organizations now capable of building planetary spacecraft
- Diversity of science destinations and science return greatly expanded
- Public imagination (and support) significantly increased through frequent exciting deep space events
- Step 1 page count expanded for Disco-12 and Scout-2...thanks!

## Thumbs-down: Some negative consequences, things to change

- Phase A studies woefully short and under-funded with respect to committing to a "not-to-exceed" cost estimate
- Cost caps not keeping pace with inflation, especially launch vehicles...take launch vehicle out of cap?
- Lack of NASA Hq Program Reserves often puts missions at risk from the truly "unexpected unexpected bad things that happen"
- Inconsistencies within AOs and progressively escalating requests for appendices sow great confusion (and anger) among proposers
- Competed PI-led missions have defacto become THE entire planetary program, except for a few Mars flagship missions